



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,300	10/27/2003	Jai K. Baek	212/536	4185
23371	7590	07/12/2004	EXAMINER	
CROCKETT & CROCKETT 24012 CALLE DE LA PLATA SUITE 400 LAGUNA HILLS, CA 92653			FREAY, CHARLES GRANT	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/695,300	BAEK, JAI K. 
	Examiner	Art Unit
	Charles G Freay	3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-27 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/27/2003</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### ***Claim Objections***

Claim 14 is objected to because of the following informalities: in line 4 "upper" should be inserted before "inwardly" in order to agree with line 11 and the rest of the dependant claims. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-10, 13-24 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by McCombs et al (USPN 6,186,477).

McCombs et al disclose a valve having a valve body (20) of a non-conformable material having a bore extending therethrough, the bore extends in the direction from the inlet port (14) to the outlet port (15). There is an upper inwardly extending flange (unnumbered but near reference numeral 24) whose bottom (left surface in drawing) serves as a valve seat, a plunger extends through the bore and has an upper small diameter segment (50), a lower large diameter segment (40) and a disk (43). The portion (40) is of smaller diameter than the disk and a biasing spring (44) surrounds it. The upper portion has an annular groove of smaller diameter than the rest of the upper portion and holds a sealing ring (46). The valve is covered by a resilient housing (12).

Claims 1, 2, 5, 7, 11, 14-16, 19, 21 and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Combs (USPN 5,364,070).

Crow disclose a valve having a valve body (5) of a non-conformable material having a bore extending therethrough, the bore extends in the direction of the inlet port (15) and the outlet port (20). There is an upper inwardly extending flange (85) whose bottom serves as a valve seat, a plunger extends through the bore and has an upper small diameter segment (70), a lower large diameter segment (120) and a disk (115). The upper portion has an annular groove (110) of smaller diameter than the rest of the upper portion and holds a sealing ring (105). The lower segment has a frustoconical surface (100) which corresponds to the valve seat.

Claims 1 and 5-12 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Jeory (USPN 6,234,450).

Jeory disclose a valve having a valve body (16) of a non-conformable material having a bore (20) extending therethrough, the bore extends in the direction of the inlet port (35) and the outlet port (22). There is an upper inwardly extending flange (28) whose bottom (right surface in the figure) serves as a valve seat, a plunger extends through the bore and has an upper small diameter segment (24), a lower large diameter segment (26) and a disk (26). The lower segment has a frustoconical surface which corresponds to the valve seat. There is an extension (surrounding rod 34) which is surrounded by a biasing spring (32).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11, 12, 25 and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCombs et al in view of Jeory.

As set forth in the above rejection McCombs et al discloses the invention substantially as claimed but does not disclose that the lower portion has a frustoconical shape. Jeory discloses a similar spring biased valve whose lower segment has a frustoconical shape. At the time of the invention it would have been obvious to one of

ordinary skill in the art to make the lower portion of McCombs et al have a frustoconical shape in order to an efficient sealing surface which wears correctly and maintains seal over time.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, and 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,409,486. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent are directed to shoe, pump and valve combination while the claims of the instant application are directed to the valve only. The structure of the valve in the claims is the same. One of ordinary skill in the art, have read the claims of the patent, would understand that the structure set forth for the valve is a functioning valve and could be used in other situations (not in combination with a shoe or a pump) where a valve is required.

Claims 1-27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-54 of U.S. Patent No. 6,638,038. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent are directed to a pump and valve combination while the claims of the instant application are directed to the valve only. The structure of the valve in the claims is the same. One of ordinary skill in the art, having read the claims of the patent, would understand that the structure set forth for the valve is a functioning valve and could be used in other situations (not in combination with a pump) where a valve is required.

### ***Conclusion***

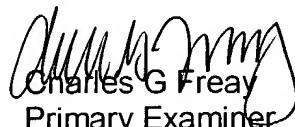
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shames et al and Gallagher disclose spring biased valves.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G Freay whose telephone number is 703-308-0639. The examiner can normally be reached on Monday through Friday 10:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 703-308-2675. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles G Freay  
Primary Examiner  
Art Unit 3746

CGF  
July 10, 2004